



# Engineering & Utilities Policy & Procedure #10

**TITLE:** **CERTIFICATIONS OF WATER BACKFLOW PREVENTERS (BFP) AND FIRE HYDRANTS**

**OBJECTIVE AND PURPOSE:**

- ◆ The purpose of this policy is to protect the university water supply from contamination through proper inspection, testing and maintenance of backflow prevention systems. It is also to ensure that fire hydrants are operating properly and are disposing water as needed during a fire emergency.
- ◆ This policy also provides guidelines and procedures for the testing, repair and certification of backflow devices and fire hydrants in accordance with Florida Statutes 633.5391, NFPA 25, City of Boca Raton Ordinance and other requirements established by the local authorities as it applies to the specific apparatus.
- ◆ In accordance to the above regulations fire hydrants and back flows shall be tested annually by certified contractor to ensure proper operation.

**RESPONSIBILITY:** **ACTION**

**DIRECTOR OF ENGINEERING & UTILITIES**

- ◆ Designate a qualified person to manage backflow prevention devices and fire hydrants.
- ◆ Allocate budget and other necessary resources to manage the program.
- ◆ Ensure that the university is in compliance with the maintenance of the apparatus.

**PROGRAM MANAGER**

- ◆ Establish system, guidelines, policies and procedures to properly manage backflows and fire hydrants by following recommended practices.
- ◆ Following university procedures hire certified contractors to perform inspection, testing and maintenance on the systems as required by regulations.
- ◆ Coordinate portable and non-portable water outages with end users, physical plant and EH&S.
- ◆ Ensure that auxiliary buildings and lease holders such as Community College and Research Park are charged for the maintenance of the systems that service their corresponding areas.
- ◆ Maintain a database of fire hydrants and backflow prevention devices and ensure Infrastructure Plan is updated regularly.
- ◆ Review inspection reports and take corrective action when necessary. Inspection reports are submitted by contractors using the attached forms.
- ◆ Maintain files of completed annual inspection reports.
- ◆ Transmit records to responsible FAU departments or other agencies as appropriate. Annual fire hydrant reports are submitted to EH&S on a timely basis.
- ◆ Review inspection reports to ensure all hydrants are operational and pressure test records match with the color coding of the hydrant. Install out of service sign if reported defective.

**ENVIRONMENTAL HEALTH AND SAFETY**

- ◆ Transmit fire hydrant flow test report to the local Fire Department.
- ◆ Fire Hydrant Inspection Report Form A, and Backflow Prevention Insp. Report Form B

**ATTACHMENTS**

- ◆ Fire Hydrant Inspection Report Form A – **Attachment “A”**
- ◆ Backflow Prevention Inspection Report Form B – **Attachment “B”**

Issued By: J. Baker	Date Issued: 1/2007	Date Revised:	Effective Date: 1/2007
APPROVED:	Vice President	Associate V.P.	Director



## ENGINEERING & UTILITIES FIRE HYDRANT REPORT

FORM A

HYDRANT AND WATER SUPPLY SYSTEMS INSPECTION AND MAINTENANCE REPORT		
Fire Hydrant Location: _____	Hydrant # _____	
Fire Hydrant Model: _____		
<b>INSPECTION</b>		
Semi-annual -- Dry Barrel Hydrants		
Annual -- Wet Barrel Hydrants		
	YES = SATISFACTORY	NO = UNSATISFACTORY
	YES	NO
Hydrants are accessible		
Hydrant outlets are slightly more than hand-tight		
There are no leaks in the top of the hydrant		
There are no leaks in the gasket under the caps		
There are no cracks in the hydrant barrel		
Hydrant drains properly (dry barrel hydrants)		
Operating nut is not worn and does not have rounded corners		
Nozzle threads are not damaged		
Check hose houses to assure all equipment is in good condition		
Turns to open (enter number of turns to open fully)		
<b>MAINTENANCE</b>		
	YES	NO
Lubricate Operating Nut		
Lubricate Packing		
Lubricate Thrust Collar		
<b>WATER SUPPLY SYSTEMS FLOW TEST</b>		
Water distribution systems: Annual test is accomplished during fire hydrant annual test.		
For each test, record the following:		
Residual hydrant location	#	
Flow hydrant location	#	
Static pressure (residual hydrant)		psi
Residual pressure (residual hydrant)		psi
Pitot pressure (flow hydrant)		psi
Nozzle size (flowing nozzles only)		inches
Nozzle coefficient (flow hydrant)		
Measured flow (GPM)		GPM
Calculated available flow at 20 psi		GPM
<b>COMMENTS</b>		
AWWA COLOR CODE: _____		
Company: _____	<i>Certified Backflow Protection, In</i> Date: _____	
Performed by: _____	Print name	
	Sign: _____	



## ENGINEERING & UTILITIES

### APPENDIX B

<b>BACKFLOW PREVENTION ASSEMBLY TEST AND MAINTENANCE RECORD</b>			
<b>I. General Information</b>			
Address:			
Location of assembly:	Date of Installation:	Incoming line pressure:	
Manufacturer	Model #:	Serial #:	
Size:	Assembly type: <input type="checkbox"/> RP <input type="checkbox"/> RP detector <input type="checkbox"/> DC detector <input type="checkbox"/> PVB		
<b>II. Test and Repairs information</b>			
<b>Initial Test</b>	<b>Check valve #1</b> <input type="checkbox"/> Leaked <input type="checkbox"/> Closed tight Pressure drop across the first check valve is _____ psid	<b>Check valve #2</b> <input type="checkbox"/> Leaked <input type="checkbox"/> Closed tight Pressure drop across the second check valve is _____ psid	<b>Differential pressure relief valve</b> <input type="checkbox"/> Opened at _____ psid <input type="checkbox"/> Did not open
<b>Repairs</b>	List repairs and corrections	List repairs and corrections	List repairs and corrections
<b>Final test</b>	<input type="checkbox"/> Closed tight	<input type="checkbox"/> Closed tight	<input type="checkbox"/> Opened at _____ psid
Condition of No.2 control valve: <input type="checkbox"/> Closed tight <input type="checkbox"/> Leaked Remarks: <input type="checkbox"/> Assembly failed <input type="checkbox"/> Assembly passed			
<b>III. Approvals</b>			
<i>" I hereby certify that this data is accurate and reflects the proper operation and maintenance of the assembly and that all control valves were left in the full open position."</i>			
Name of certified technician		Technician phone#	Name of Witness to test:
Signature of certified technician	Technician certification #	Date	Witness phone #